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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,794

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Ian Sayers

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EXAMINER

HUG, ERIC J

ART UNIT

PAPER NUMBER

1791

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/577,794	<b>Applicant(s)</b> SAYERS, IAN	
	<b>Examiner</b> Eric Hug	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 and 23-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 provides for a method of making an industrial fabric comprising the use of laminated object manufacture but, since the claim does not set forth any steps involved in the method, it is unclear what method applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 9 and 10 recite the limitation "the cut-out step". There is insufficient antecedent basis for this limitation in the claims.

All other claims are accordingly rejected as being dependent on claim 1.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 9-14, 16-19, 23-26, 28, 29, and 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Albert (US 4,541,895).

Albert discloses a papermaking fabric comprised of two or more laminated non-woven layers with drainage apertures formed therein. Figure 5 shows a final fabric 106 formed on a laminating machine from two separate rolls containing individual fabric layers 100 and 101. The layers are fed into a laminating nip 105 where they are joined together. Glue or adhesive may be used to join the layers. See column 3, lines 46-49. The drainage apertures are created in the fabric by techniques such as laser drilling. The apertures may be provided in the fabric after lamination of the individual layers, or in the individual layers prior to lamination. See column 6, lines 3-10. The size and distribution of the apertures can be varied to provide a given permeability. The thickness of the layers can be varied also. See Figure 3.

As best understood by the examiner, laminated object manufacture involves bonding together a plurality of layers of sheet material into a three-dimensional object, wherein the materials are conveyed over a work station, bonded together using an adhesive, and, if desired, further operated on by a forming tool, such as a laser. The fabric of Albert is constructed in this manner, therefore Albert anticipates the method of claim 1.

Art Unit: 1791

Regarding claims 2 and 5, as mentioned above, apertures (perforations) are cut into the fabric or fabric layers individually by techniques such as laser drilling.

Regarding claims 3 and 35, application of pressure is provided by the lamination nip.

Regarding claim 4, as mentioned above, an adhesive is applied to bond the layers.

Regarding claim 6, perforations may be pre-cut as described above.

Regarding claims 9-11, Figure 3 shows the size and distribution of perforations are different among the layers. It can be seen that the largest perforations are in the first layer, with layers having progressively smaller holes going up from the first layer. See also column 5, lines 41-68.

Regarding claims 12-14, laminating the layers together prior to forming apertures by laser is deemed to be equivalent to the claimed semi-complete stage. Also forming apertures in individual layers prior to lamination to other layers is deemed to provide a semi-complete fabric in accordance with the claims.

Regarding claim 16, joints between layers are staggered relative to other layers to not adversely affect the overall thickness of the fabric. See column 7, line 60 to column 8, line 20.

Regarding claims 17-19 and 36, the claimed fabric follows from the method of claim 1. The claimed differences in aperture size and layer thicknesses are illustrated by Albert in Figure 3.

Regarding claim 23, the fabric of Albert is a paper machine clothing useful as a forming fabric, press felt, or dryer felt (column 1, lines 18).

Regarding claims 24 and 25, exemplary materials are disclosed in column 5, lines 4-19. Different layers may be made of different materials.

Art Unit: 1791

Regarding claims 26, 28, and 29, Figure 5 also illustrates incorporating non-woven longitudinal yarns (monofilaments) between the layers of the fabric as the layers are laminated together. Figures 6A and 6B show other ways of incorporating yarns, either longitudinally or transversely. See also column 6, line 66 to column 7, line 7.

Regarding claim 37, the fabric is a seamed fabric (column 8, lines 21-23).

Regarding claim 38, polyester and polyamide are disclosed as known materials (column 1, lines 28-37).

Claims 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Halker (US 4,761,329).

Halker discloses a papermaking felt having a support material 1. The support material consists of a single belt of material 2. The belt of material, which is about twice as long as the finished felt, is folded back upon itself. Seam loops are formed at folded edges 9, 10. Spirals are inserted at the folded edges to connect the edges of the support material. The support material is thereby closed into an endless belt.

Claims 20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Best (US 6,283,165).

Best discloses a paper machine felt formed from an insert 2 and a encircling longitudinal thread module 3 which together define seam loops (coupling eyes 9, 10) between the outside ends of the insert 2 and the inner surface of the longitudinal thread module 3. The insert may comprise a perforated film.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albert in view of Feygin (US 5,730,817). Albert is applied to claim 1 above. Albert discloses using laser drilling to form apertures in the fabric. Regarding claim 7, Albert does not disclose how the cut-out portions of the fabric are removed. However, it is well known in the art of laminated object manufacture to blow air across a work station to remove waste material, particularly waste which might interfere with the operation of the laser. At the time of the invention, it would have been obvious to one skilled in the art to remove the cut-out portions of the fabric in Albert for the same reasons.

Regarding claim 8, the feature of bonding the layers by applying pressure is described above with reference to claim 3.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albert in view of Hansen et al (US 6,565,713). Albert is applied to claim 1 above. Regarding claim 15, Albert does not disclose spiral winding a first formed laminate over rollers and bonding the laminated fabric to a return of the spiral. Hansen discloses a press fabric manufactured by spirally winding a laminate strip about two rollers in a plurality of abutting turns, and joining each turn of the strip to that previously wound. The laminated strip has at least two layers attached to one another.

Art Unit: 1791

The spiral wound strip provides flexibility in manufacturing press fabrics of any length and width dimensions. At the time of the invention, it would have been obvious to one skilled in the art to construct the fabric of Albert using a spiral winding technique as disclosed by Hansen to obtain the same flexibility in manufacture.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albert in view of Price (US 3,664,907). Albert is applied to claim 1 above. Regarding claim 27, Albert does not disclose using an epoxy or silicone based adhesive for laminating layers together. However, the use of an epoxy resin for bonding together layers of a paper machine fabric is known in the art, as exemplified by Price. The claim is unpatentable, because the selection of a known material based on its suitability for the intended use is within the skill of one in the art.

Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albert in view of Sayers et al (US 5,925,221). Albert is applied to claim 1 above. Regarding claims 38 and 39, Albert does not disclose yarns made of basalt. However, the use of basalt in a paper machine fabric to provide resistance to wear is known in the art, as exemplified by Sayers. The claim is unpatentable, because the selection of a known material based on its suitability for the intended use is within the skill of one in the art.



*Allowable Subject Matter*

Claims 30-34 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The claims would be allowable for providing yarns that are encapsulated in machine direction lands of the fabric.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jeffrey (US 6,436,240) discloses a papermaking clothing having laminated layers and one or more layers of perforated film.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is (571) 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Hug/  
Primary Examiner, Art Unit 1791